

NEW ENGLAND SUPPLY COMPANIES

THOMSON-HOUSTON ELECTRIC COMPANY



The Thomson-Houston Electric Company was formed on February 12, 1883, as a result of the acquisition of American Electric Company of New Britain, Connecticut. During the company's ten business years, Thomson-Houston became famous as America's leading manufacturer of arc-lighting systems, motors, transformers and electric dynamos. In later years the firm sold a full line of electrical supplies, alternating current equipment and central station AC generating systems.

The company was named after Elihu Thomson (Figure 1.), a Philadelphia high school chemistry professor who began his commercial career at the American Electric Company works at New Britain, Connecticut, and Edwin J. Houston, who also was a teacher at Philadelphia Central High School.

Thomson-Houston Electric Company's first president was Charles A. Coffin, a former shoe manufacturer, who was very instrumental in getting the new company off to a secure financial start.

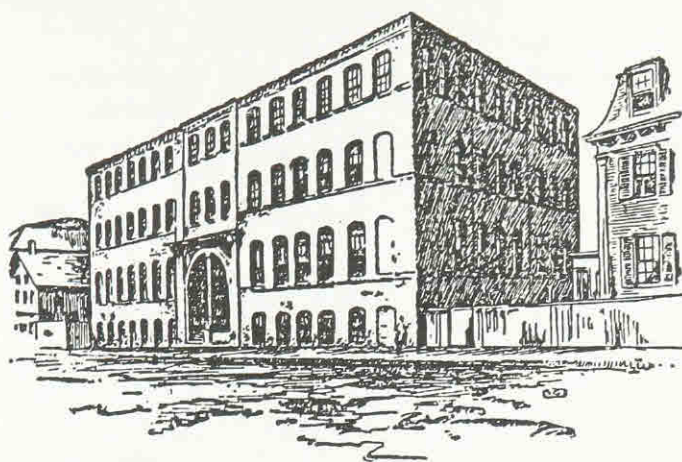
The company works were established in Lynn, Massachusetts, a suburb north of Boston. A building was erected in Lynn on Western Avenue which originally consisted of a full basement and three stories. In subsequent years, the facilities were rapidly expanded. (Figure 2.)

The principal items Thomson-Houston sold in their earliest days were arc lamps and dynamos. After the original building was completed in late 1883, orders for these goods flowed in rapidly. Business was so good that the number of shop employees increased from seventy-five to one hundred and fifty. Arc lights were installed by Thomson-Houston during 1883 in several major U.S. cities, including Kansas City, Missouri; Boston, Massachusetts;

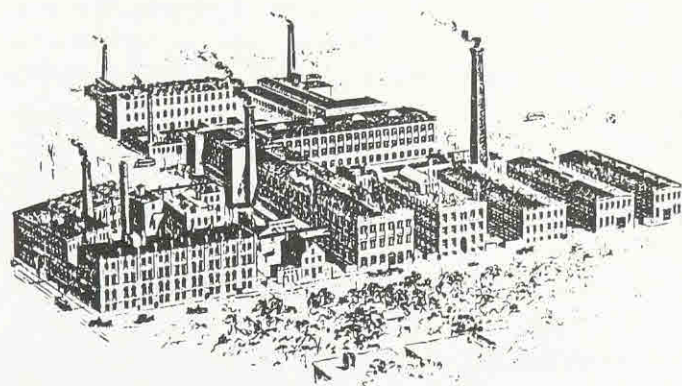


(Figure 1.) Elihu Thomson left the teaching profession to become a professional inventor. He's pictured at the age of 28 when he was perfecting his arc-lighting system.

Portland, Maine; Quincy, Illinois; and Hartford, Connecticut. In 1884, under a policy suggested by Mr. Coffin, the firm began to establish central electric generating plants. He felt this move would be beneficial to the future of the company. (Figure 3.) During the company's existence, the firm acquired other well-known companies such as the Brush Electric Company and Bentley-Knight Electric Railway Company. The Thomson-Houston Electric Company experienced a business lull during a slowdown of the nation's economy during 1890, and Mr. Coffin was



(Figure 2.) The Thomson-Houston factory in 1884. The first building occupied by this pioneer company in Lynn, Massachusetts.



(Figure 3.) The Thomson-Houston plant in Lynn - 1892. In eight years the Thomson-Houston company had expanded to this size, from the single building on Western Avenue, seen at the extreme left in the drawing.

forced to seek additional outside financing for the company. He underwent lengthy negotiations with Mr. Henry Villard, president of the Edison General Electric Company, which finally resulted in a merger of the two companies. On April 15, 1892, the negotiations were complete and a new organization, the General Electric Company, was born. (Figure 4.)

Insulators were never produced by Thomson-Houston, but were made on special order by Brookfield and Hemingray, and are lettered "T-H.E.CO." (Figure 5.) The most commonly found style is the CD 134 produced by Brookfield. These date back to approximately 1883-1890, or possibly somewhat later. The Brookfield specimens are embossed on the skirt and usually are of aqua glass. Some have also been located in shades of green, ranging from light to dark greenish olive. In addition, a few CD 134 T-H.E.CO. insulators were manufactured by Brookfield in deep root beer amber glass. Most of these were located in southeastern Massachusetts during the 1970's and early 1980's on old



(Figure 4.) After the Thomson-Houston Co. merger with Edison General Electric Co. to form the General Electric Co. in 1892, Thomson (left) and Charles Steinmetz, shown on a street corner in Lynn, Massachusetts, in the mid-1890's, helped establish in 1900 the General Electric Research Laboratory, the first of its kind in the world.

(Figure 5.) Example of the "T-H.E.CO." embossing as found on CD 143.5.

T-H.E.CO.

fire alarm lines. It is possible this unusual color was not intended, but caused by using cullet from an overrun of beer bottles.

Brookfield also made some CD 162 T-H.E.CO. insulators and most are of aqua glass. These are not quite as common as their CD 134 counterparts. Both styles have the characteristic mold line over the dome, indicating these were manufactured in two-part molds. The CD 162 T-H.E.CO. insulators also bear the November 13, 1883 patent date on the skirt. (See discussion of patent in The New England Manufacturers chapter)

The Hemingray Glass Company also produced insulators for Thomson-Houston. All of these are CD 134 and probably date back to around 1890. All are in shades of aqua or light green. They are embossed across the top of the dome with "T-H.E.CO.". None have drip points and

all have Robert Hemingray's December 19, 1871 patent date. (See Gray and Hemingray Revisited chapter)

Two other insulators manufactured for Thomson-Houston Electric Company are CD 143.5 and CD 245. There is no information regarding the specific application of the CD 143.5 style; however, a number of them have been located on low voltage lines, particularly on the house ends of open wire electric service drops. The majority of these units have been found in the Northeast. The insulators were made in two-part molds, are light aqua, have swirl-start threading, and are embossed "T-H.E.CO." on the front crown. Although their manufacturer is unknown, it is possible most were made by Brookfield, judging from the insulators' overall appearance. (Figure 6.)

T-H.E.CO.

(Figure 6.) Typical lettering as found on the Brookfield-made CD 134 T-H.E.CO. specimens. When Thomson-Houston became the General Electric Company, the letters "T-H." were removed from the insulator molds and the letter "G" was inserted. Evidence of this can readily be seen on many earlier G.E. insulators.

REMARKS:

(Figures 1. and 4.) reprinted by Carol McDougald with permission from IEEE. Original article was entitled "Elihu Thomson: Man of Many Facets" in the IEEE SPECTRUM, Vol. 20, No. 10, pp. 72-75, October, 1983. (Courtesy of Crown Jewels of the Wire magazine, February 1986)

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PETTINGELL-ANDREWS COMPANY

PETTINGELL-ANDREWS COMPANY
— ELECTRICAL MERCHANDISE —

GENERAL OFFICES AND WAREHOUSES
156 TO 160 PEARL STREET AND 491 TO 511 ATLANTIC AVE.

This firm was a well-known Boston distributor from 1888 through 1927 of electrical goods and wiring supplies. (See The New England Insulators chapter)

C.S. KNOWLES



Manufacturer

7 ARCH ST., BOSTON

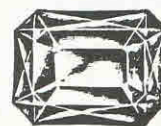
NEW YORK OFFICE
120 BROADWAY

FACTORIES
ELMER and TRENTON, N.J.
SOMERVILLE, MASS.

Among the electrical construction suppliers which were prominent during the early 1900's was the Knowles Supply Company. Their main headquarters were located at 7 Arch Street, Boston, Massachusetts, and the organization also operated a New York City office at 120 Broadway. Knowles listed factories at Elmer and Trenton, New Jersey, and Somerville, Massachusetts, in their 1902 catalog. They apparently distributed a significant number of insulators, some of which probably were manufactured by the Brookfield Glass Company. Knowles also offered several porcelain designs manufactured by the Imperial Porcelain Works, Trenton, New Jersey. Of particular interest to glass insulator collectors was the rather impressive line of insulator styles made on special order for Knowles by several glassworks.

During 1902 Mr. Charles S. Knowles, proprietor of the company, registered a trademark which he termed an "emerald". This marking, similar to a rectangular prism, represented his "Emerald Glass" electrical glassware line and appears on most of the Knowles insulators produced for his company's distribution. (Figure 1.)

Emerald Glass



(Figure 1.) Registered trademark of the C.S. Knowles Co.

Research on the Novelty Glass Manufacturing Company operating from 1901 to 1903 in Elmer, New Jersey, suggests that they were probably one of the manufacturers of the insulators sold by Knowles. (See Glassmaking in Elmer at the Turn of the Century chapter)

Knowles insulators have been documented in many designs and most are large specialty styles designed for high voltage distribution and supporting large electric cables. Rare exceptions located to date are two telephone transposition styles, which are represented by CD 190/191 and CD 199. The latter is among numerous designs unique

to Knowles.

Most Knowles insulators prominently bear the emerald-shaped prism on their skirts. There are some styles identified only with this trademark, while others also are lettered with the Knowles name. Some of the saddle groove units bear reference to Samuel Oakman's June 17, 1890 patent which covered this design.

Due to the fact that Knowles units are quite old and probably weren't too commonplace in their day, most styles are uncommon to rare. The most readily available Knowles design is the CD 252. Some of these specimens are only lettered "KNOWLES CABLE/ INSULATOR". These light aqua insulators are scarcer than their usual counterparts which are also embossed with the Knowles prism.

Of interest to collectors are a few CD 252 insulators lettered on the front skirt "KNOWLES/ CABLE INSULATOR" with "THE/M.&E.Co./PHILADELPHIA" on the rear skirt. The initials "M.&E." represent the Mayer & Englund Company, a Philadelphia organization which existed during 1901-1906. They specialized as a supplier of electric railway construction equipment. These specimens are aqua and do not bear the Knowles prism trademark. Apparently Mayer and Englund offered the CD 252 Knowles Cable Insulator among the goods they sold.

Illustration at the beginning of article is a C.S. Knowles letterhead from 1902 Knowles Catalogue Number Twenty.
(Courtesy of Frank R. Peters Books)

In addition, some CD 252 Hemingray specimens with "No.2 CABLE" or "No.62 CABLE" lettering have been located with distinct traces of "KNOWLES CABLE INSULATOR" still visible after attempts were made to obliterate the previous embossing.

For many years it was not unusual for a glass insulator manufacturer to purchase used molds of another who might have gone out of business or upgraded their molding equipment. These second-hand molds were usually available from scrap dealers who acquired them. The subsequent owner, after purchasing this equipment, filled in the previous lettering and inscribed their own, often leaving some evidence of the original embossing. Without a doubt, Hemingray did exactly this in this instance, accounting for the CD 252 specimens described above.

Knowles insulators are found in a variety of aqua colors. However, the most spectacular colors in which these larger power pieces have been located are shades of green, yellow green, and dark olive green.

Confirmed CD styles represented by "REGISTERED TRADEMARK", "KNOWLES" or any prism-shaped embossing and attributed to Knowles Supply Company distribution are: CD 190/191, 199, 252, 253, 280, 282, 283, 292, 292.5, 293, 296, 299.1, 315, 321, and 333.

"The New England Supply Companies" was researched and authored by Joe Maurath, Jr. (See The New England Manufacturers chapter for biography)